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19. An apparatus as recited in claim 18 wherein said first processor is operable to control said position of said manipulandum in said rate control mapping mode.

20. An apparatus as recited in claim 19 wherein said first processor is operable to control a biasing force applied to said manipulandum in a direction toward said position in said rate control mapping mode.

21. An apparatus as recited in claim 1 further comprising a wireless communication interface operable to communicate with said first processor.

22. An apparatus as recited in claim 1 wherein said deviation comprises a distance.

23. An apparatus as recited in claim 1 wherein said deviation comprises a direction.

24. An apparatus as recited in claim 1 wherein said deviation comprises a rate of change.

25. An apparatus as recited in claim 1 wherein said deviation is measured substantially in real-time.

26. An apparatus comprising:

a manipulandum movable in at least two rotary degrees of freedom, wherein said at least two rotary degrees of freedom comprise a first and a second rotary degree of freedom, wherein an axis of rotation of said first rotary degree of freedom is substantially perpendicular to an axis of rotation of said second rotary degree of freedom;

a sensor operable to detect a motion of said manipulandum and to output a first signal associated with a detected motion of said manipulandum;

a first actuator operable to output a first force to said manipulandum, the first force associated with said first signal;

a second actuator operable to output a second force to said manipulandum, the second force associated with said first signal; and

a first processor operable to control said first actuator and said second actuator and to receive said first signal from said sensor; and

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a second processor in communication with said first processor, said second processor operable to control said first processor,

wherein said sensor is operable to detect a first position of said manipulandum, a second position of said manipulandum, and an amount of a deviation between said first and second positions and to output a second signal that associates with said first position, a third signal that associates with said second position, and a fourth signal that associates with said amount of said deviation, said first processor operable to receive said second, third, and fourth signals.

27. An apparatus as recited in claim 26 wherein said first processor is operable to associate a value with said first position of said manipulandum in a position control mapping mode and to control a rate of change of said value in a rate of control mapping mode.

28. An apparatus as recited in claim 27 wherein said first processor is operable to control said force to said manipulandum in said rate control mapping mode.

29. An apparatus as recited in claim 27 wherein said first actuator is operable to output a force detent during a displacement of said manipulandum in said position control mapping mode.

30. An apparatus as recited in claim 27 wherein said rate of change associates with a displacement of said manipulandum with respect to said first position of said manipulandum.

31. An apparatus as recited in claim 30 wherein said first processor is operable to control said first position of said manipulandum in said rate control mapping mode.

32. An apparatus as recited in claim 31 wherein said first processor is operable to control a biasing force applied to said manipulandum in a direction toward said first position in said rate control mapping mode.

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